

35 U.S.C. § 102 over Harper should be withdrawn for at least the same reasons given above with respect to claim 1.

Claim 4 recites “electromagnetic actuators . . . wherein at least one of the actuators includes . . . a flux sensor.” As discussed above, Harper does not teach or suggest the unique combination of a claim limitations of claim 4, including “a flux sensor.” Accordingly, the rejection of claim 4 under 35 U.S.C. § 102 over Harper should be withdrawn.

Claim 5 depends directly from claim 4, and incorporates every limitation thereof. Accordingly, the rejection of claim 5 under 35 U.S.C. § 102 over Harper should be withdrawn for at least the same reasons given above in relation to claim 4.

Claim 13 recites “a method of controlling vibration of a variable-state structure . . . comprising . . . obtaining first data . . . obtaining second data representative of variable mechanical characteristics of said variable-state structure; and selectively applying electromagnetic forces . . . as a function of said first data and said second data” (emphasis added). Harper relates to “[a] system of active vibration control . . . [including] a plurality of uni-axial inertial actuators.” (Column 1, lines 54-56.) A “controller 35 causes the actuators 14, 15 to produce forces on the flange 11 by providing electric currents to them. When alternating currents are provided to the actuators by the controller 35, they provide alternating forces to the flange 11 which in turn produce vibrations in the pipe 23.” Column 5, lines 8-15. Harper does not, however, teach or suggest the limitations of claim 13, including “obtaining second data representative of variable mechanical characteristics of said variable-state structure.” Accordingly, Harper does not anticipate claim 13 or render it obvious, and the rejection of claim 13 under 35 U.S.C. § 102 over Harper should be withdrawn.

Claim 19 recites “an actuator . . . including an electromagnet, an armature and a magnetic flux density sensor.” As discussed above in relation to claim 1, the previous Office Action acknowledged that Harper does not teach or suggest “an actuator . . .

including an electromagnet, an armature and a magnetic flux density sensor.” Accordingly, the rejection of claim 19 under 35 U.S.C. § 102 over Harper should be withdrawn.

Claims 20-22 each depend, directly or indirectly, from claim 19 and incorporate every limitation thereof. Accordingly, the rejections of claims 20-22 under 35 U.S.C. § 102(b) over Harper should be withdrawn for at least the same reasons given above with respect to claim 19.

Claims 5-12 and 14-18 stand rejected under 35 U.S.C. § 103(a) over Harper in view of United States Patent No. 5,000,415 to Sandercock.

Claims 5-12 each depend, directly or indirectly, from claim 1 and therefore incorporate every limitation thereof. As discussed above, Harper does not teach or suggest the unique combination of limitations of claim 1 including “a flux sensor.” Even accepting, *arguendo*, that Harper might be combined with Sandercock as proposed, the combination would not remedy this deficiency of Harper. There is nothing in Harper and Sandercock, taken alone or in combination, to teach or suggest “an electromagnetic actuator . . . and a flux sensor.” Accordingly, the rejection of claims 5-12 under 35 U.S.C. § 103 over Harper in view of Sandercock should be withdrawn.

Claims 14-18 each depend, directly or indirectly, from claim 13 and incorporate every limitation thereof. As discussed above in relation to claim 13, Harper does not teach or suggest the unique combination of limitations of claims 14-18 including “obtaining second data representative of variable mechanical characteristics of said variable-state structure.” Applicant does not concede the propriety of the proposed combination of Harper and Sandercock. Nevertheless, even if the combination were properly made, it does nothing to remedy the above-noted deficiency of Harper. Harper and Sandercock, taken alone or in combination, do not teach the respective combinations of limitations of claims 14-18, including “obtaining second data representative of variable mechanical characteristics of said variable-state structure.” Therefore, the rejection of claims 14-18 under 35 U.S.C. § 103 over Harper in view of Sandercock should be withdrawn.